3/20/07 BdWrshp Item 8
Water Recycling
Deadline: 3/27/07 5 pm

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Ms. Tam Doduc
Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

Submitted via email to: commentletters@waterboards.ca.gov

March 27, 2007

RESPONSE TO THE SWRCB'S REQUEST FOR COMMENTS ON A STATEWIDE RECYCLED WATER POLICY

Dear, Ms. Doduc,

Thank you for the opportunity to provide comments to the State Water Resource Control Board (SWRCB) on the development of a statewide water recycling policy. We agree with, and enthusiastically support, the SWRCB staff's recommendation that the Board should pursue the development of a statewide policy.

Since the 1970's the SWRCB and the Legislature have issued decisions and directions that advocate for the increased use of recycled water. However, as a state we are failing to meet these goals (1 MAF by 2010), in part because of the existing regulatory confusion and uncertainty. Adding to the delay and confusion is the difference in application and interpretation of relevant laws and water code provisions by the Regional Boards. A great deal of confusion exists today about how to best promote environmentally sound uses and applications of recycled water. The need for a statewide policy is both timely and prudent.

In part, given that the state has recognized that it must actively manage and mitigate the negative impacts that climate change will have on our water quality and water supplies, we currently have a unique opportunity to begin to proactively and thoughtfully develop holistic and sustainable solutions to supply a high quality reliable water supply to all Californians. The collapse of the ecological health of the Delta is another indication that Californians cannot continue to think of,

value, and use our water exactly as we have in the past. We must use our water wisely, and we must reuse it in every instance where it is safe and makes sense to do so.

We applaud your efforts to involve a wide array of interested stakeholders in the development of this important policy, and look forward to actively participating in the process. Increasingly, it is necessary for all stakeholders (government, industry, environmental, public, etc.) to collaborate and work together to find ways integrate solutions to water supply and water quality issues. This is a difficult and challenging task, but one that will produce many more long term benefits than isolated problem solving.

In addition to responding to the Board's questions (see below), we have also added the following related comments for your consideration:

- **Promote and Ensure the Environmental Benefits of Water Conservation**: In addition to finding integrated solutions to water supply and water quality problems, there is a great opportunity to produce environmental benefits as a result of increased water use efficiency through conservation and increased recycled water use. Currently, mechanisms do not exist to ensure that all (or a portion of) the potable water that is offset by conservation or recycled water projects is permanently dedicated to environmental uses (in stream flow, habitat restoration, etc.). We encourage the SWRCB to develop ways to link conserved water to environmental uses.

- **Not all Recycled Water Projects are Created Equal:** The water supply and water quality pros and cons related to recycled water projects differ greatly depending on the type of project (irrigation, industrial or non-potable use, indirect potable reuse, direct potable reuse, etc.). The SWRCB's recycled water policy must consider these differences and provide clear policy guidance accordingly. Miscommunication about recycled water issues is often caused by blurring different project types. One cannot adequately regulate different types of recycled water projects with one blanket policy.

- **Consider the Alternatives:** Since recycled water projects are often new and innovative projects that bring together water quality and water supply interests for the first time, skeptics often create fear and raise objections around issues such as: emerging contaminants and regional salt management issues. We request that the SWRCB consider these valid concerns in context with all other water supply options. Emerging contaminants are an increasing problem. So is salt. But these problems exist in most water supplies, and are certainly not limited to, or caused by, recycled water. Recycled water projects must not be unnecessarily burdened with solving these problems. Instead, the SWRCB should consider developing state or region-wide programs to address these larger problems directly (source reduction programs, education, etc.).

  In considering the value of a recycled water project, we encourage the SWRCB to consider all of the other water supply alternatives (and their water quality and environmental impacts) for the proposed use. For example, other water supply options might include: 1) Imported water: the energy necessary to move it, the environmental impacts of doing so, increasing salinity, etc.; 2) Desalinated Ocean Water: the negative

impact to marine life, converting ocean water to potable water, coastal land use issues, etc.

- **Develop an Effective Recycled Water Permit System:** The SWRCB must ensure that the permit process for recycled water projects meets all environmental and legal requirements. At the same time, the Board must take care to develop a thoughtful process for recycled water permits that is timely, efficient, and cost effective. The goal should be to promote the safe and legal use of recycled water. For example, the issue of incidental runoff of recycled water has been problematic. The SWRCB must find a way to comply with the law without placing an excessive burden on recycled water projects.

Specifically, in response to the questions listed in Item 8 of the 3/20/07 SWRCB meeting agenda:

Irrigation Projects and Salts

- *What should the SWRCB do to protect groundwater basins in the state from the accumulation of salt, including nitrate?*

The lack of comprehensive statewide regulations for groundwater is problematic from both water quality and water supply perspectives. As the SWRCB is aware, California is one of only two states in the nation (Texas is the other) without comprehensive groundwater regulations in place. As a result, our groundwater is both polluted and over-drafted. Ultimately, the state needs comprehensive groundwater regulations to protect water quality and public health as well as enforce the reasonable use of water throughout the state.

In the meantime, the SWRCB should require the Regional Boards to work collaboratively with water districts to gather comprehensive groundwater data (hydrology, pollution levels, total recharge capacity, assimilative capacity, actions impacting groundwater, etc.) and require regional groundwater monitoring. Accurate information will enable the Regional Boards to make recycled water permitting decisions based on scientific fact, not fear. Once the Regional Boards have centralized access to existing groundwater data, it should become evident what additional groundwater data is necessary to accurately regulate actions in the basins. An example of a successful comprehensive groundwater plan is Santa Ana Region's nutrient basin-wide management plan.

Ideally, this regional data collection and monitoring effort will be a collaborative effort between all water districts and interests in the basin. Basin plans should be regularly updated and adapted to respond to current activities and emergency preparedness.

Once a comprehensive understanding of groundwater quality and capacity is known and collaborative regional monitoring efforts are in place, specific recycled water project monitoring (i.e. irrigation projects) will likely not be necessary---as the necessary water quality data will already exist.

With respect to salts and nitrates, the best way to protect the groundwater basins is to reduce the use of the constituents, thereby reducing their exposure to groundwater. A statewide or regional source reduction program is the one of the best viable long term solution to accumulated salts.

- *To protect groundwater basins from the accumulation of salt, should the concentration of salt in recycled water used for irrigation be limited? If so, what procedures should be used to establish the limitations?*

Irrigation projects are designed to apply water to the ground at agronomic rates such that they will not significantly contribute to the accumulation of salts in the underlying groundwater basins. Thus, the regulation of irrigation projects should be simple and straightforward, and few if any procedures should be required in addition to the issuance of Water Recycling Requirement permits.

- *To limit the discharge of nitrate to groundwater, should the SWRCB require recycled water users to prepare nutrient management plans?*

Nutrients should be managed on a regional and basin-wide basis, not on an individual recycled water irrigation project basis. See comments above re: regional groundwater monitoring and regulation, as well as source reduction programs to reduce nutrient loading.

- *Should groundwater monitoring be required for recycled water irrigation projects?*

Not if the project meets all of the Department of Health Services' (DHS) requirements for recycled water use for irrigation purposes. As stated above, irrigation projects are designed to apply water at an agronomic rate that should not cause any interaction with the groundwater basins. Any groundwater recharge resulting from irrigation projects will be minimal and incidental, and should be treated as such.

Groundwater Recharge Reuse Projects

- *What requirements should be placed on groundwater recharge reuse projects to protect the public from toxic constituents?*

DHS has developed draft groundwater recharge regulations. These regulations are designed to protect public health. The SWRCB should defer to DHS' guidance and regulations relating to toxic constituents. Please refer to the comment below.

Anti-Degradation Policy

- *Should the SWRCB modify Resolution 68-16 to encourage water recycling or to clarify the language? If so, what modifications should be made to the policy?*

The SWRCB should not modify the Anti-degradation Policy.

However, we request that the SWRCB provides clarifications and additional guidance on how to implement the policy to ensure that project developers, Regional Boards, and other stakeholders are all appropriately interpreting the policy. See the next comment. Currently, many stakeholders seem fearful of anti-degradation analyses. These analyses should be decision making tools, not threats. Oddly, it is difficult to find an example of an anti-degradation analysis to review. Thus, it would be useful if the SWRCB included an example of an Anti-degradation analysis in its forthcoming recycled water policy.

- *Should the Water Recycling Policy define what is "maximum benefit to the people of the state" and/or what is "best practicable treatment or control" for water recycling projects?*

Yes, while the Anti-degradation Policy does not need to be modified, certain aspects of the policy need to be clarified to ensure proper use and implementation of the policy. We recommend the following clarifications:

  - Define "maximum benefit to the people of the State." It is unclear how either a project developer or a Regional Board would evaluate this concept. What should be taken into consideration? How is this analysis done? More guidance is necessary.

  - Provide parameters and guidance for "assimilative capacity." Again, this is a concept that is not clearly understood by any/all stakeholders. If assimilative capacity exists in a basin, how does a project developer or a Regional Board prioritize the use of such assimilative capacity? What is the baseline for assimilative capacity? Historic levels of constituents, or forecasted ones?

  - Clarify "Best practicable treatment and control." What does this apply to with respect to recycled water projects? The treatment plant effluent or the quality of the recycled water? This needs further explanation.

  - Provide guidance for how one should evaluate other alternative water supply options---if recycled water is not used, what will the impacts to water quality and the maximum benefit of the state be if imported water is used? Desalinated ocean water?

Agency Coordination .

- *DHS is developing regulations for groundwater recharge reuse projects. Should the SWRCB not address some issues related to groundwater recharge reuse projects, since they may be addressed by DHS?*

DHS has produced draft regulations for groundwater recharge projects. There will be a public hearing process seeking comment on these regulations before they become final. Interested stakeholders should participate in DHS' process if they are concerned about the

regulations. Otherwise, the SWRCB and Regional Boards should defer to DHS on public health issues related to recycled water.

Policy Issue: Should the SWRCB develop a Water Recycling Policy?

Yes! Recycled water contains untapped potential to safely and sustainably meet our state's water needs in the face of projected increasing populations and decreasing certainty of water supplies due to climate change impacts. Together, the SWRCB and interested stakeholders must thoroughly and thoughtfully explore the potential for the environmentally safe and sustainable use of recycled water. The time is now to tackle these tough issues and set the course toward integrated water resources management.

Thank you for soliciting our thoughts and comments in the development of this important policy. We look forward to working with you.

Sincerely,

Jill Gravender
Director, Water Programs